ABSTRACT

A gas turbine system comprises a compressor that takes in suction air on the inlet side and compresses it to compressor end air that is available on the outlet side, a combustor in which a fuel is burned by using the compressor end air while resulting in the formation of hot gas, as well as a turbine in which the hot gas is expanded while providing work output. In a method for cooling this gas turbine system, compressed air is removed from the compressor, is fed as cooling air for cooling inside an internal cooling channel through thermally loaded components of the combustor and/or the turbine, is then compressed and added to the compressor end air. An improved cooling without disadvantage for the efficiency of the system is achieved in that, in the manner of a targeted leakage, a small part of the cooling air is fed for film cooling into the turbine stream through drilled film cooling openings provided on the components.